**Amendments to the Specification:**

Please replace paragraph **[0033]** with the following rewritten paragraph:

**[0033]** In step S1700, a determination is made whether the prediction error for any of the N models is greater than the noise variance. In step 1700, if the prediction error for at least one model is greater than the noise variance, operation continues to step S1800. If not, control returns to step S1200, where each system control model is reassigned a new weight $w_i$, and the process continues for steps S1300-S1700.

Please replace paragraph **[0034]** with the following rewritten paragraph:

**[0034]** In step S1800, the results of the prediction of each model are ranked based on prediction errors. Next, in step S 1900, the invested amount, $\sum_{i=1}^{N} aw_i$, obtained from all N of the models, is split between the N models according to how well each model predicted the behavior of the system. For example, if the prediction error in the $i^{th}$ model is $e_i(t+\Delta) = x(t+\Delta)-x_1(t), u(t)$, then the fraction of the amount $\sum_{i=1}^{N} aw_i$ going to the $i^{th}$ model is

$$\Delta w_i = a\left[\frac{1/\left(e_i^2+\sigma^2\right)}{\sum_{j=1}^{N} 1/\left(e_j^2+\sigma^2\right)}\right]$$

where $\sigma^2$ is an estimate of the noise variance. That is, there should be an incentive to predict better than the noise. In this case, the new model weights would be given by the difference between the amount invested and the return on investment. In other words:

$$w_i^{new} = (1-a)\, w_i^{old} + a\left[\frac{1/\left(e_i^2+\sigma^2\right)}{\sum_{j=1}^{N} 1/\left(e_j^2+\sigma^2\right)}\right]$$

This preserves the fact that the weights sum to 1.